

GRANULATED BLAST FURNACE SLAG (GBFS)



Granulated blast-furnace slag (GBFS) is obtained by quenching molten iron slag (a by-product of iron and steel-making) from a blast furnace in water or steam, to produce a glassy, granular product that is then dried and ground into a fine powder. It is suitable for applications in marine environment, mass concreting and sulphate environment, water retaining structures, basement and other structures which require low heat of hydration.

GGBFS is off-white in colour and substantially lighter than Portland cement. The whitish colour is also observed in concrete made with GGBS, especially at addition of 50% and above. The more pleasing appearance of GGBFS concrete can help soften the visual impact of large structure such as bridges, retaining walls, etc.

CHEMICAL RESULT

Sr No.	Characteristics	unit	Range	Typical Result
1	Silica as SiO ₂ %	(%)	32.00 to 38.00	36.70
2	Calcium as CaO %	(%)	32.00 to 38.00	34.62
3	Magnesium as MgO %	(%)	6.00 to 10.00	8.90
4	Iron Oxide as Fe ₂ O ₃ %	(%)	0.70 to 1.50	1.00
5	Alumina as Al ₂ O ₃ %	(%)	14.00 to 18.00	17.20
6	Loss on ignition	(%)	0.50 to 0.80	0.50
7	Insoluble Residue	(%)	1.50 to 2.50	1.80
8	Manganese Oxide MnO %	(%)	0.70 to 09.0	0.34
9	Glass contents	(%)	92.0 to 95.0	92.50